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# MR. NEWBERRY'S NAVAL REFORMS.

BY REAR-ADMIRAL CASPAR F. GOODRICH, U.S.N.

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## I.

THAT the Navy has made great advances within the past few years is of common knowledge; in what respects these advances are most important is less well known. A brief statement seems therefore proper and timely of the steps taken by the recent administration to make the naval organization more efficient and more economical. It is improper, as well as forbidden by regulations, to speak of what has happened since March 4th of this year, even in terms of praise. The purpose of this article is purely historical; with current developments it has no concern, however gratifying and encouraging they may be.

The recent increase both in the number and the individual power of our battleships is so notable as to appear almost phenomenal. On January 1st, 1905, the navy list contained twelve battleships and two armored cruisers completed; the heaviest of the former displacing 12,500 tons.\* On January 1st, 1909, there were twenty-five completed battleships and ten new armored cruisers. The latest battleships had reached 16,000 tons displacement and the two original armored cruisers had been disrated to "cruisers, first class." It would not be unfair to hold that the fighting value of the American fleet had meanwhile tripled. The growth in size of the "capital ship" during this interim is shown in the statement, from the same source, that of the six "under construction," the last are designed to displace 21,825 tons. While a continuous expansion under this head might have been normally expected, this sudden leap is probably due to the necessity of producing vessels to meet those

\* Displacement is the total weight of the ship and everything on board.

of the famous British "Dreadnought" type on favorable terms. It may be mentioned, incidentally, that our own smaller ships, the "Michigan" and "South Carolina" of 16,000 tons, are very highly considered by many experts who see in them a happy combination of battery, armor, speed and habitability and who believe that they need ask no odds from even the "Dreadnought" herself. Since 1904 no armored cruisers have been authorized by Congress. This class seems to have fallen into general disfavor. It is practically as costly in construction and maintenance as the battleship. Its sole superiority, that of speed, is not thought to compensate for its lack of power to give and take heavy punishment.

The concentration of effort upon strengthening our "first line of defence" by turning out battleships to the comparative exclusion of other rates must commend itself to all who realize the advantage of abundant force when and where needed, and the impossibility, on the outbreak of war, of making good any deficiency in armored craft. Other forms, such as torpedo-destroyers and submarines, have not been neglected, but it has been deemed better to give them a minor share in our ship-building programme. It would be difficult to impeach the wisdom of this policy.

That some of our later additions to the unarmored fleets bring an inadequate return for the money expended may possibly be contended by some authorities; with how much justice or error, this paper, not being controversial in character, will not pretend to say. Neither will it discuss the value of certain types which, unlike the battleship, have not commanded universal acceptance. Naval science is no more free from sects than is medical science. Were it dead or moribund, there would be no opposing schools of thought.

In the matter of batteries, torpedoes, powder and projectiles, the progress has been steady if not theatrical. No startling innovations are to be chronicled, but a constant improvement along all lines. The questions relating to the pointing of the guns have received much attention. It is a subject of pride that certain of our mechanical appliances to that end have been adopted (for experiment) by foreign navies. No one who knows their value can doubt that this adoption will be permanent—until some ingenious Yankee devises something better. Every navy to-day

uses telescopes in bringing the sights on the target and therein does honor to our own Captain Fiske, U.S.N., the first to urge the use of this now indispensable instrument. The handling of ammunition has been facilitated and the necessary apparatus made stronger and simpler. The ordnance authorities, in conjunction with the ship-designers and aided by the counsels of officers afloat, have made creditable headway in overcoming the dangers that have caused the history of our turrets to be the saddest in all naval annals. These authorities foresee, it is understood, a demand for heavier guns than the present standard twelve-inch and are making provision to supply that demand when it shall arise. In the race for naval preponderance, it is well to keep in the lead. In this respect, the traditions of our own service will be observed, for it has always contended for heavier weapons than those carried by its possible antagonists.

In the question of types and the general features of battle-ships, Mr. Newberry's recomposition of the Board of Construction, when he was Secretary of the Navy, gave the sea-going officers so large a majority that their complaint that they were quite ignored was no longer valid. No one can deny the desirability of furnishing the workman with the tools he believes essential to his craft. Whether in the past this obligation received insufficient recognition need not be discussed here. Suffice it to say that Mr. Newberry's order ought to yield results satisfactory to those who have to navigate and fight our men-of-war and who alone, in the public eye, are responsible for the nation's safety.

One episode may be referred to in this connection out of which much good has already come. The conference held at Newport a year ago on the plans of our new vessels brought together many officers of all grades and corps who, after interchanging their views with perfect freedom, reached a consensus of opinion and of recommendation that must inevitably bear excellent fruit. Never before had members of the naval service so untrammelled an opportunity of hearing all sides of any relevant topic, of weighing their own propositions against honest and intelligent adverse argument and thus of receding from or being strengthened in their own positions. The report of this conference is, very properly, kept confidential, for it deals with important subjects for our own enlightenment and not for that of our neighbors,

but that the move was well advised the event has shown conclusively.

It is not so much in the tangible evidences of growth as illustrated in more and larger ships, the adoption of turbines as the propelling agency and in a more numerous personnel that the work of the last administration is to be perceived by the painstaking investigator as in the changes brought about in a desire to place the Navy's business methods on the highest plane of efficiency. The theme is not of that soul-compelling interest afforded by new armored vessels and a world-encircling cruise, but the thoughtful patriot willing to make any necessary sacrifice in order to build and maintain a powerful fleet, yet solicitous lest regard be not had for wise and remunerative expenditure of public funds, will doubtless welcome an account of what was done to introduce approved methods with their consequent enhanced rapidity of communication, economy of production, lessened red tape and lower prices paid for naval supplies. It is only because this particular phase is less evident and little known that especial emphasis is laid upon it here—with the candid admission that, in other matters, equally laudable and more obvious progress has been effected.

To appreciate rightly what has been accomplished, a general understanding of the situation is essential. The business of the Navy Department is by law "distributed in such manner as the Secretary of the Navy shall judge to be expedient and proper among the following bureaus: viz., Yards and Docks, Equipment, Navigation, Ordnance, Construction and Repair, Steam Engineering, Supplies and Accounts, Medicine and Surgery." The legal services required in the ordinary routine of discipline and of affairs are rendered by a Judge-Advocate-General and a Solicitor. In these offices and officers the statute has provided the Secretary with the necessary machinery for discharging his onerous and important duties. For advice on the numberless questions of naval policy, the use of the fleet and such other matters as he may refer to it, the Secretary looks to the General Board, composed of thoughtful and approved officers and presided over at present, and it is hoped for many years to come, by the Admiral of the Navy, George Dewey.

The bureaus of the Navy Department have been, in the past, the target of much criticism; yet it would seem as if some legal-

ized instrumentalities must exist for carrying on the department's work, and that if they were abolished to-day a substitute, practically the same thing under another name, would have to be created to-morrow. The bureaux have, of course, the defects of their qualities. Their chiefs, selected from eligible officers of the Navy, are appointed by the President and confirmed by the Senate. They stand, as they should stand, towards the Secretary of the Navy as duly authorized and competent counsellors. Moreover, they are zealous, ambitious and, as a rule, able, but, being also human, they are apt to regard their own branch of the Navy as more important than any other branch. Can we blame them altogether if to their eyes the whole seems sometimes less than their own part? It is easy to comprehend that, living in daily close personal and official relations with the Secretary, who is usually lacking in experience in service matters, when first assuming his portfolio, a clever and persuasive bureau chief might, with the best and purest of motives, induce his superior to adopt a line of action which would not be to the interest of the Navy as a whole. The bureau chief is not culpable in urging views which he believes conscientiously to be wise, prudent and advanced; neither is the Secretary for lending credence to an officer who commands his respect and confidence. Every general manager finds himself in a similar case. That of a big steel plant is importuned for heavier rolls in the rail-mill or more furnace men or new spurs in the yard railway, or a recently patented crane or an increase in the clerical force, etc. He must weigh these several demands, giving here a little, there much. At some points he concedes not at all or directs a reduction. Fortunately for him, he has risen to his position of authority, climbing the steel-making ladder slowly but surely, never skipping a rung and always secure of his footing before reaching up for another step. When he gets to the top, he knows his ladder perfectly, its weak points and its strong. It would be idle to attempt to deceive him. The new Secretary of the Navy, on the other hand, brings to his task marked ability and a national reputation, but—a more or less complete ignorance of the details of the complex organization placed in his charge. That changes in naval methods were so slight during the recent administration may be explained by the natural assumption that the many and brief-termed Secretaries were reluctant to go ahead until more thoroughly acquainted with

the various sides of each proposed measure. They might, quite naturally, have feared the ultimate consequences of deciding some apparently trivial question—so delicate and so tradition-bound is the naval organism. It is safe to say that nothing is more essential to the Navy's welfare than a more permanent tenure of office on the part of the distinguished and capable gentlemen called to administer its affairs. Continuity in office for several years can alone give a Secretary that intimate knowledge and firm grasp without which he may feel indisposed to take the initiative in radical departures.

For the reasons just given, a rearrangement of the Navy Department, strongly urged by many on grounds which this article cannot discuss with propriety, did not come about. Let us now pass from Washington to the other naval establishments on shore.

The fleet is dependent upon the navy-yards for its repairs, much of its equipment and practically all of its supplies. That the navy-yards fall short of their possible maximum in economy has frequently been alleged and never seriously denied. With the excellence of their product, speaking in general terms, there has been no general dissatisfaction. It has happened, of course, on occasion that certain work has not been done as well as was expected, but the instances are too rare to furnish just cause of sweeping condemnation. It may rightly be assumed that, in the main, the navy-yards have done well that which they have been called upon to do. To the charge of want of economy they must, however, plead "guilty with extenuating circumstances." Industrially, they stand at a hopeless disadvantage when compared with private establishments, for they operate on a rigid statutory eight-hour basis and their employees, after one year's service, are granted fifteen days' leave per annum on full pay. All of these, without exception, enjoy seven holidays with pay during the year; receive full wages for working but half of each Saturday in July, August and September and liberal compensation for time lost on account of injuries. These items would constitute in themselves a determining handicap even if the yards were reduced in number to the few actually required by the naval service. It is estimated that leaves and holidays at the Washington navy-yard increase the expense of running its great gun-shops by nearly \$400,000 each year, and also that these leaves involve a general addition of fifteen per cent. to the cost of navy work. Part of

this increase is direct and calculable—the remainder is indirect and therefore can only be estimated. It occurs through the necessity of constantly shifting new men to work in hand or else of stopping the work until the old mechanic can return and take it up again, with the delays incident to lack of continuity, etc. Whether the estimate of fifteen per cent. be correct or too great is of little consequence as far as this writing is concerned. It is enough to point out causes, which are completely inescapable, of the enhanced price of navy-yard output. The Navy altogether disburses one and a half millions of dollars annually for leaves and holidays from which it derives absolutely no benefit. How unjust, therefore, to blame it for the compulsory extravagance due to this item, which alone would bar it from competition with outside concerns.

Referring to the state of affairs, say, in 1907, this is the picture of our principal navy-yards which presented itself to any visitor possessed of an inquiring mind. At each he would have found five essentially complete manufacturing establishments within the one enclosure. In some cases, any one of these establishments could perform all the work of its class required by the entire yard. The visitor would have been rather sure to see five machine-shops, five carpenter-shops, five pattern-shops, five blacksmith-shops, five paint-shops, etc., each with its complement of artisans and its staff of foremen, quartermen and leading-men. He might have found only three foundries, or electroplating shops, etc., but he would not have been surprised by the full number of five.

How did this multiplication of facilities arise? The answer is very simple—through the unforeseen expansion of “the bureau system.” Originally devised to conduct the business of the Navy Department, every bureau, from small beginnings, gradually developed at each yard a more or less thoroughly equipped industrial plant, buying its own materials, hiring its own operatives and carrying on its own work by itself, for itself and without regard to its neighbors. Did it need a new machine tool, it bought that tool notwithstanding there may have been a dozen such tools lying idle in another bureau’s shop across the navy-yard street. These separate and distinct bureau plants at a yard, with their offices, officers and attendant duties, known as “yard departments,” were conducted by officers called the “Head of the De-



partment of Ordnance, Yards and Docks, Equipment, Construction or Steam Engineering," as the case might be. While under the military control and subject to the orders of the officer in command of the yard ("the Commandant") these heads of departments were bureau men, selected as such and therefore, most naturally and inevitably, guided by a commendable loyalty to their chiefs in Washington. To expand their own boundaries, multiply their facilities on the ground that they must be ready to grapple with the sudden rush of work inevitable in times of emergency, and to widen the influence and scope of their particular bureau, was not only to be expected, but, in the lack of departmental disapproval, was absolutely praiseworthy. The growth of the bureau idea could easily have been predicted. It followed a law as unchangeable as human nature itself. Let us not condemn the individual for doing his best to perpetuate and enhance the system apparently acceptable to the Navy Department, however much we are tempted to regret the subordination of the Navy as a whole to the interests of its parts. We might even go so far as to say that, while each subdivision of the Navy was ably cared for, there was no person or office charged with the welfare of the entire service. Theoretically, the Secretary himself was so responsible, but practically his deficiency in that intimate acquaintance with its personnel, history and methods prevented his discharging his duty with prudent vigor.\* Much as he would have liked to act, the Secretary did not feel sufficiently sure of himself and thus insensibly the power which he might have wielded was not exercised at all or it passed in a measure into the hands of the bureau chiefs. Between these appeared to exist a sort of "gentlemen's agreement." When they were not in accord, appeal was made to their common superior, to whom were also referred such questions as manifestly could not be dealt with by any one bureau chief. In fact, why, legally, should they trouble him except in extreme cases or where their interests conflicted? Does not a statute of the United States distinctly give their order the same weight and authority as that of the Secretary of the Navy? Law and custom were therefore entirely on their side. They could go as far as they thought expedient,

\* It is, by the way, in this absence of some authority to speak for the whole Navy that the advocates of a General Staff found their soundest argument when some years ago they urged the creation by law of such a body.

provided they did not traverse his prestige. The result of this state of things was that at times a Secretary would feel as though practically side-tracked. Not through a desire to make a grand lama of him, but purely as the consequence of a steady, imperceptible drift, the Secretary became more and more of a figure-head and less the helmsman of the naval barque. On important subjects he could not be, and, in fact, he was not, ignored, and he could at any time assume control even of details had he so desired. No bureau chief sought designedly to lessen the Secretary's prerogative, but it was so much easier to decide questions assumed to be minor in the bureau than to disturb the Secretary. The latter again, as a rule, received only such professional advice as came from his bureau chiefs who had daily and hourly access to him. The naval service might be practically of one mind on some vital point and yet its voice never reach his ears, provided that voice found no echo in a departmental bureau. It was nobody's business to say to him: "Sir, the Navy thinks so and so. Personally, I do not think so, but it is my duty to inform you that such views are held with substantial unanimity." Since the Navy Regulations are very stringent on the subject of open utterances on current topics by naval officers, the existence of a strong service public opinion might not even be suspected by the Secretary. That recommendations by officers in their official communications would come under his eye might be expected by those who are unaware of the physical impossibility of his reading even the thousandth part of the daily mail addressed to him. Suggestions must be on some given point and not vaguely general. In other words, they must, in the vast majority of cases, enter the domain of some particular bureau. That being the case, the letter containing these would be automatically referred for action to that bureau where it would find a welcome or a pigeonhole. In either event the Secretary was none the wiser. It is, hence, no cause for amazement that this partition of his duties, sanctioned by long usage in the department itself, should have been carried to the navy-yards, there to achieve its perfect fruit. Thus in each navy-yard little *imperii in imperio* grew apace—for who was there to call a halt? If the Naval Constructor wanted to install an electroplating establishment, even though the Equipment Officer had in operation a well-appointed shop of that character, he obtained the consent of the Chief Constructor, bought the ap-

paratus, and went ahead. Probably such matters were seldom presented to a Secretary before Mr. Newberry's time.

The vacancy created in the office of Assistant Secretary of the Navy by the resignation, in 1905, of that excellent, level-headed Vermont lawyer, Judge Darling, was filled by the appointment of Mr. Truman H. Newberry, of Detroit. Mr. Newberry had been an enthusiastic member of the Naval Militia of his State. During the Spanish-American war he held a commission as lieutenant in the Navy, serving as such with credit on board the auxiliary cruiser "Yosemite." These circumstances account for his interest in naval matters. In addition, he brought to his new position deep knowledge of mercantile affairs, wide practical experience as a successful manufacturer, sound judgment and fearlessness of responsibility. His immediate superiors, Mr. Bonaparte and Mr. Metcalf, placed reliance upon his capacity and gave him practically full charge of the navy-yards and their affairs. Their absences from Washington being neither infrequent nor brief, Mr. Newberry was often called upon to occupy the Secretary's chair and therein to decide important service questions. Three years and more he spent in the Navy Department studying its organization, learning the capacities and idiosyncrasies of the officers and others with whom he was brought in contact, diligently performing his duties and gradually acquiring a profound insight into naval administration and a wide acquaintance with naval personnel. In this school he was an apt scholar. What he did not learn was hardly worth the learning. His antecedents led him perforce into desiring to better the methods of carrying on the Navy's work which he quickly recognized as susceptible of marked improvement. Even then, however, he realized the wisdom of going slowly and of taking no step forward until assured that his advance was upon firm ground. In this necessity he experienced the disadvantage of being so situated as to lack, not the general view from the outside of things at the navy-yards, but the presentation of concrete facts from within upon which to base his action. Nor could he, without sacrificing his immediate responsibilities, undertake to discover the special weaknesses inherent in the system. Although secure in his own attitude towards desirable reforms and wholly ready to move to their introduction, he felt for a long time the need of definite information in enough instances to justify to himself the adoption

of remedial measures. Occasionally, of course, the routine correspondence of his office would yield him the proof he required, but many things were happening daily, entirely right, according to law and the Navy Regulations, and, quite naturally, never brought to his attention, which, if submitted to him in their relation to other allied matters, would not have received his approbation. How, for example, was he to know that a bureau proposed to buy \$50,000 worth of machinery for installation at a yard where a perfectly adequate plant of similar character already existed, unless some one acquainted with the case and having no interest other than a hope to save a needless expenditure of Government funds should lay the details before him? The bureau seeking to bring its facilities up to its desired maximum of capacity and controlling its own appropriations in which specific provision had been made for this new machinery would never think of turning that balance into the Treasury because another bureau was already equipped for doing all work of that character at the yard in question. The "bureau system" negatived any such view on the part of the former bureau; nor would the latter bureau feel it either discreet or courteous to interfere.

We thus find in the Department an Assistant Secretary, often and for rather prolonged periods actually the real chief, under the title of "Acting Secretary," to whom great powers had been granted, who, by training and temperament, was exceptionally fitted to enforce more economical methods. Is it a cause for surprise that such an energetic official should seek and obtain a means of breaking through the charmed circle of bureaus and get from an outside source the specific statements and recommendations of which he stood in need and which he was prepared to utilize as he deemed best and most expedient? It must not be forgotten, as already stated, that to all intents and purposes Mr. Newberry was, by his chief's command, in particular charge of our navy-yards, and that whatever he did in connection with them, even as Assistant Secretary, was by virtue of the authority so freely conceded to him.

If at this point another figure enters upon the scene and speaks in the first person, it is not to magnify his own share, but to describe, with loyal gratitude to his superior officer for the chance of "doing some good for the republic," the steps he was permitted and encouraged to take in furtherance of Mr. New-

berry's ideas. The writer knows, better than any other person, how impossible it would have been for him to move at all had he not been assured at all times of Mr. Newberry's earnest wish to receive any statement or suggestion which could assist in effecting reforms at our navy-yards. The writer begs that this qualification be understood at every succeeding point of the narrative even when, for brevity's sake, the *ego* is unaccompanied by the phrase "at the Secretary's or Mr. Newberry's desire."

My first move in this matter, after assuming command of the New York navy-yard on the 1st of June, 1907, was to expedite the inspection of supplies delivered by contractors. To this end I directed that the officers assigned to this work should regard it as paramount to all other duty and should within twenty-four hours of delivery inspect all articles whose quality and quantity could be determined by mere examination, accepting or rejecting them *immediately*. Cases involving chemical or physical test were to be put at once in the hands of the Navy's accredited experts and pushed with all speed. Daily reports of every operation were required to be handed in to me. These were carefully and promptly scrutinized. No excuse was ever tolerated for delay in these inspections. Later on changes were introduced in the methods of inspection and in the records of the disposition made of deliveries which still further abbreviated the time between their receipt at the General Store and the payment of the bill. With the suggestion of these changes I was intimately connected, but they required and they secured the Secretary's approval. At the Navy Department the present chief of the bureau of Supplies and Accounts, Paymaster-General E. B. Rogers, U.S.N., not only added his influence in simplifying our procedure, but he obtained permission to eliminate several time-consuming and wholly unnecessary pieces of red tape in connection with public bills. The routine by which supplies are obtained at a yard remains unchanged in essentials. The office requiring the goods makes request on the General Storekeeper, who frames the requisition, a document which explains the necessity and gives the quantities and descriptions of the various articles desired. The requisition goes to the bureau chief, whose appropriation is to bear the charge, is approved by him and sent to the Paymaster-General, who directs how and where the purchase shall be made. The articles are then bought by advertisement or through sealed pro-

posal or, in an emergency, by a purchasing officer (Navy Pay Officer) near the yard concerned. The General Storekeeper, after delivery of the article, prepares the public bill with all its certificates as to appropriation, mode of purchase, quality and quantity, inspection, etc. Formerly, this paper went back over the old ground, was signed by the General Storekeeper, approved by the Commandant and the Paymaster-General, and returned to the Navy Pay Office, which demanded a receipt for the money in advance of the payment. In the mean time, notice of the indebtedness was given to the Treasury Department, which remitted the exact sum to the Navy Pay Office. What a roundabout way to pay for five dollars' worth of brooms! Nowadays the public bill goes direct from the General Storekeeper to the Navy Pay Office and the latter, out of a current fund to his credit in the Sub-treasury, pays the amount of the bill at once in a Government check. Where contractors were made to wait three and four weeks for their just dues, they now receive their compensation with practically no delay whatever. It is not an uncommon occurrence for a firm to make delivery and within forty-eight hours obtain its money. No business house could possibly excel this record. The effect of the new departure is felt in countless ways. Manufacturers and dealers who once declined to deal with the Navy because of "red tape" and delay are at last only too anxious to secure so desirable a customer; the great concerns enter into the competition and offer their wares at the lowest possible price; interest on the money involved in the transaction for which of old a liberal allowance had to be made in fixing the rate no longer figures in the computation. Prompt inspection, prompt rejection and prompt payment combine to save the Navy a large sum annually with the obtaining of equally good if not better material. There are those who estimate these economies in hundreds of thousands of dollars.

CASPAR F. GOODRICH.

*(To be Concluded.)*